

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-15 (Canceled)

16. (new) A cylinder head for an internal combustion engine with a metallic valve seat ring, the valve seat ring comprising a Co or Co/Mo base alloy deposited in a homogenous layer upon the cylinder head by an arc wire spray process, wherein the thickness of the layer is between 0.1 and 2 mm, wherein the sum of the Co and Mo content is greater than 50 wt.% and wherein the Fe content is below 5 wt.%.
17. (new) A cylinder head according to Claim 16, wherein the Cr content of the Co/Mo base alloy is from 5 to 30 wt.%.
18. (new) A cylinder head according to Claim 16, wherein the nominal chemical composition of the deposited layer in wt.% is: Mo 25 to 35%, Si 1 to 4%, Fe less than 3%, Cr 5 to 20%, C 0.05 to 1%, remainder Co and trace components of less than 1%.
19. (new) A cylinder head according to Claim 16, wherein the component of free Mo and/or Co not bound in the Co/Mo base alloy is below 10 Vol.%.
20. (new) A cylinder head according to Claim 16, wherein the porosity of the spray deposited layer is below 5%.
21. (new) A cylinder head according to Claim 16, wherein the Co/Mo base alloy has a Co content of at least 45 wt.%.
22. (new) A cylinder head according to Claim 16, wherein the thickness of the spray deposited layer is in the range of 0.5 to 2 mm.
23. (new) A cylinder head according to Claim 16, wherein the content of the metal oxides or metal nitrides in the spray deposited layer is below 2 wt.%.

24. (new) A process for producing a thermal sprayed valve seat ring, said process comprising:
- deposition the valve seat ring by an arc wire spray process, with at least two filled wires and/or composite wires, as a homogenous layer of a Co/Mo base alloy upon a cylinder head until a layer thickness of between 0.1 and 2 mm is reached,
- wherein said filled wires comprise a jacket and a filler, wherein said composite wires comprise a matrix at least partially surrounding particles, and wherein a substantial portion of the Co in the deposited layer is supplied by the jacket of the filled wire and/or the matrix of the composite wire.
25. (new) A process for producing a thermal sprayed valve seat ring, wherein the valve seat ring is deposited, by an arc wire spray process using a Co-rich filled wire and a Cr and/or Ni rich filled or solid wire, as homogenous layer of a Co/Mo base alloy upon a substrate material, wherein a substantial proportion of the Co in the deposited layer is supplied by the jacket of the filled wire.
26. (new) A process according to Claim 24, wherein the jacket of the Co rich filled wire or the matrix of the Co rich composite wire has a Co content above 90 wt.% and a Fe content in the range of 0.5 to 5 wt.%.
27. (new) A process according to Claim 24, wherein the core of the Co rich fill wire essentially comprises Mo, Cr, Ni and/or Si.
28. (new) A process according to Claim 24, wherein the fill wire is produced from a Co strip or a Co pipe and wherein the filler metallic components are in powder form.
29. (new) A process according to Claim 24, wherein greater than 95% of the material of the filled wire, composite wire or solid wire transition into the molten phase during the arc wire spray process.
30. (new) A process according to Claim 24, wherein a carrier gas is employed in the arc wire spray process, and wherein said carrier gas is N₂ or Ar.